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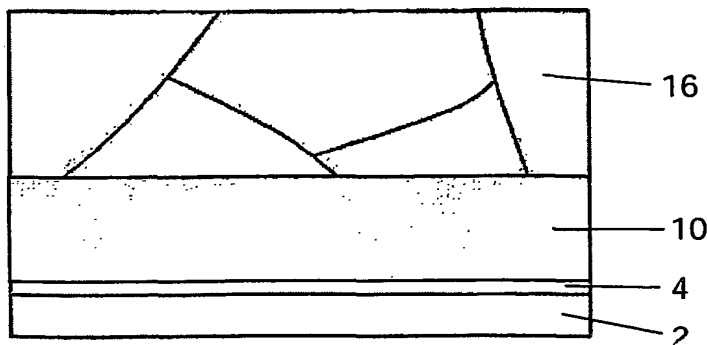
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(54) Title: **IMPROVED GATE ELECTRODE FOR SEMICONDUCTOR DEVICES**



(57) **Abstract:** The present invention provides an MIS type semiconductor device, comprising a semiconductor substrate and a gate electrode formed on the gate insulating film and formed of gate material. The gate electrode comprises: a first layer of activated crystalline gate material having a first side oriented towards a substrate and a second side oriented away from the substrate, the first layer of activated crystalline gate material having a doping level of  $10^{19}$  ions/cm<sup>3</sup> or higher, and a second layer of gate material at the second side of the first layer of activated crystalline gate material. The present invention also provides a method for making such a device.

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